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The role of grandparents in preventing aggressive and other externalizing behavior problems in children from rural, methamphetamine-involved families

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Abstract

Preventive interventions are urgently needed for children from rural, methamphetamine-involved families, who are at risk for the development of aggressive and other externalizing behavioral problems. This mixed method study explored naturally occurring sources of protection and considers the implications for targeted interventions. Participants were 41 children aged six to 14 years from rural families involved with methamphetamine and the public child welfare system, their primary caregivers, and 19 parents recovering from methamphetamine addiction. When invited during semi-structured interviews to talk about their families, 48% of children spontaneously described socially and emotionally supportive relationships with healthy grandparents. Children's reports of support from grandparents were associated with lower scores on CBCL Social Problems, [$t(37) = 2.23, p < .05$]; externalizing behaviors, [$t(37) = 2.07, p < .05$]; and aggressive behaviors, [$t(37) = 2.75, p < .01$]. When asked to talk about their families, 58% of parents spontaneously described the support their children received from grandparents, and 26% also described the support that they had received from their own grandparents. Children's and parents' descriptions of grandparent support suggest how grandparents may protect children from the development of aggressive and other externalizing behavior problems. First, grandparents may prevent obstacles to healthy development by providing their grandchildren with safe shelter and basic child care when parents are incapacitated from substance misuse. Second, they may promote their grandchildren's positive social-emotional development through supportive relationships. Third, they may promote social competence through enjoyable leisure activities with healthy adults and non-delinquent peers. Understanding naturally occurring sources of protection for children can inform the development of interventions by identifying strengths on which to build, and suggesting culturally sensitive approaches when children are struggling.

Keywords

methamphetamine; rural families; grandparents; aggression

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1. Introduction

This mixed method study explored any naturally occurring sources of protection from the development of aggressive and other externalizing behavioral problems in children from rural families involved with methamphetamine and the public child welfare system. These children are at high risk for mental health and behavioral disorders, and effective preventive interventions are urgently needed (e.g., Asanbe, Hall, & Bolden, 2008; Ostler, Haight, Black, Choi, Kingery, & Sheridan, 2007). The misuse of methamphetamine is a sizeable, ongoing, and persistent criminal justice and public health problem across the U.S. (Cretzmeyer et al., 2003; Hohman, Oliver, & Wright, 2004; National Drug Intelligence Center, 2009), especially among individuals of child rearing age (Amatetti & Young, 2006; Muskie School of Public Service, 2007) and in rural areas (Adrian, 2003; Federal Bureau of Investigation, 2006; Illinois Criminal Justice Authority, 2004). In 2008, the yearly rate of methamphetamine lab seizures nation-wide increased by 9%, the first increase since 2003 (National Drug Intelligence Center, 2009). Methamphetamine misuse affects not just individuals, but entire families including children who live in homes where methamphetamine is produced and misused (Shillington, Hohman, & Jones, 2002; Haight, Jacobsen, Black, Kingery, Sheridan & Mulder, 2005). Understanding naturally occurring sources of protection for children can inform the development of interventions by identifying strengths on which to build and suggesting culturally sensitive approaches when children are struggling.

1.1 Risks faced by children from methamphetamine-affected homes

Children from rural methamphetamine-involved families may be exposed to a variety of environmental factors that place them at risk for the development of aggressive and other externalizing behavioral problems. First, children may learn violent and other antisocial behavior and beliefs through exposure to models within their families. Parents' methamphetamine misuse often co occurs with violent behavior including severe intimate partner violence (Haight et al., 2005; Haight, Ostler, Black, Sheridan, & Kingery, 2007; Haight, Ostler, Black, & Kingery, 2009). Exposure to aggressive behavior, including intimate partner violence (Johnson, Kotch, Catellier, Winsor, Dufort, Hunter et al., 2002; Yates, Dodds, Sroufe & Egeland, 2003), is associated with the development of children's aggression (e.g., Dodge, Coie, & Lynam, 2006; Baldry, 2003; Moretti, Obsuth, Odgers, & Reebye, 2006). In addition, many children from methamphetamine-involved families are exposed to adult criminality related to the production and purchase of methamphetamine (Haight et al., 2005; 2007; 2009). Exposure to adult criminality also is associated with the development of children's aggressive behavior (e.g., Dodge et al., 2006).

Second, children may experience trauma and stress that lead to feelings of frustration and anger, which are relieved by acting-out the aggressive and externalizing behaviors learned within their families. Many children from methamphetamine-involved families experience physical, sexual, and emotional abuse from substance misusing parents and other users who frequent the home to purchase and misuse drugs (Cretzmeyer et al., 2003; Hohman et al., 2004; West, McKenna, Stuntz, & Webber-Brown, 2000; Manning, 1999; Haight et al., 2005; 2007; 2009). Indeed, children whose parents misuse substances are almost three times more likely to be physically or sexually assaulted than children of non-substance-involved parents (National Center on Addiction and Substance Abuse at Columbia University, 1999). Child maltreatment is associated with a variety of children's externalizing problems including conduct problems, and disruptive behavior disorders (Cicchetti, Toth & Maughan, 2000; Dodge et al., 2006; Egeland, 1997). In addition, placement in foster care, a highly stressful and even traumatic outcome for many children from methamphetamine-involved families, is associated with heightened levels of externalizing behaviors including aggression and rule breaking (Achenbach & Rescorla, 2001; Clausen, Landsverk, Ganger, Chadwick &

Litrownik, 1998; Finzi, Ram, Har-Even, Shnit & Weizman, 2001; Heflinger, Simpkins & Combs-Orme, 2000; Tarren-Sweeney, 2008; Tarren-Sweeney & Hazell, 2006), and involvement with the criminal justice system (Jonson-Reid & Barth, 2000; Ryan & Testa, 2005; Thornberry, Smith, Rivera, Huizinga, & Stouthamer-Loeber, 1999).

Consistent with research on the development of aggressive behavior, many children from methamphetamine-involved families engage in problematic levels of aggressive behavior. Preschool-aged children from rural Tennessee scored higher than did a comparison group of preschoolers on caregiver reports (BASC-PRS-P) of externalizing behaviors (40% vs. 15% clinical range, respectively), especially aggression (42% vs. 5% clinical range, respectively) (Asanbe et al., 2008). Knowledgeable adults (teachers, child welfare professionals, foster care providers, etc.) reported high levels of aggressive behavior in school-aged children from methamphetamine-involved families in rural Illinois (Haight et al., 2005). As a group, school-aged children from rural methamphetamine-involved families who were in foster care in Illinois showed borderline or clinically significant externalizing and/or aggression scores on the Childhood Behavior Checklist (CBCL) (Ostler et al., 2007; Haight, Black & Sheridan, 2010).

Childhood aggression is one of the best known social predictors of concurrent and future maladjustment (Crick, 1996; Parker & Asher, 1987; Prinstein & La Greca, 2004; Rosen, Underwood, Beron, Gentsch, Wharton & Rahdar, 2009). Such behavior can further compound environmental risk factors by leading to further trauma exposure, and involvement with delinquent peer groups (Broidy, Tremblay, Brame, Fergusson, Horwood et al., 2003; Tremblay, Nagin, Seguin, Zoccolillo, Zelazo et al., 2004) and the criminal justice system (Huesmann & Eron, 1992). The design of effective interventions targeted to high risk children from rural, polysubstance-involved families is necessary to change negative developmental trajectories.

Despite exposure to multiple risks, some children from rural, methamphetamine-involved families do not have clinically significant mental health problems (Haight et al., 2009; Ostler et al., 2007). These findings suggest the presence of protective factors that may inform the design of targeted, culturally-sensitive interventions. Yet, data on any naturally-occurring sources of protection for these children is sparse. Studies with other groups of vulnerable children and adolescents indicate that supportive relationships with extended family members can offer protection from the development of high risk behavior including aggression (Resnick, Bearman, Blum, Bauman, Harris et al., 1997; Rhodes & Roffman, 2003). Extended family members may be especially important sources of support for children whose rural, methamphetamine-involved families may be isolated, suspicious of outsiders and have limited access to, or predisposition to use, social services (Haight et al., 2005). Healthy extended family members can serve as non-threatening family insiders who provide children with help and visible alternatives to parents' substance-involved lifestyles.

1.2 Grandparents as a source of protection from risk

For children whose parents misuse drugs, the presence of supportive, non substance-misusing grandparents has been discussed as a potential protective factor (e.g., Kroll, 2007; Ghuman, Weist & Shafer, 1999). Increasing numbers of grandparents are serving as primary caregivers for children in the child welfare system (e.g., Hirshorn, 1998; Minkler & Fuller-Thomson, 2000). There is an especially high rate of kinship placements in families where parents misuse substances (Child Welfare League of America, 2000; Goodman, Potts, Pasztor & Scorzu, 2004; Smith & Palieri, 2007; Testa, 2008). Furthermore, children in kinship foster care have demonstrated higher social competence and fewer social and total problems on the Childhood Behavioral Checklist (Achenbach, 1991) than children in traditional foster care (Keller, Wetherbee, LeProhn, Payne, Sim & Lamont, 2001).

Rural, Midwestern adults report that the involvement of healthy, supportive grandparents is one factor distinguishing children from methamphetamine-involved families who function relatively well compared with those who are struggling (Haight et al, 2005). In the following excerpt, an educator explains why she feels that Brad, a 13-year-old boy from a methamphetamine-involved family and his younger brother are resilient, and how their grandmother supported this resiliency:

I just feel that these boys are very fortunate because they've got a good family upbringing from their extended relatives. They have one grandma that, basically ... made sure the oldest one got to school every day and that he had his homework done. And she bought him a skateboard pass at the YMCA. She just made sure she took care of him... (Sheridan, 2010)

Additional research is needed to understand how grandparents may protect children from the development of social and behavioral disorders. In addition, the majority of research on grandparents raising grandchildren focuses on urban families (see Bullock, 2004). Rural grandparents, who may have distinct challenges and resources, have received scant attention.

The current study utilizes a rural, Midwestern sample of children and parents involved with the child welfare system. It is part of a larger, NIDA-funded study of rural, methamphetamine-involved families. In this report we examine four research questions. First, to what extent do children spontaneously describe social-emotional support, especially from grandparents? Second, is there a relationship between children's perceptions of support and their social and behavioral functioning as indicated by the CBCL, especially aggressive and other externalizing behaviors? Third, how do children describe their grandparents as providing support? Next, to what extent, and how, do parents recovering from methamphetamine addiction view grandparents as supportive of children? Finally, we summarize an illustrative, 3-year longitudinal case study of a relatively resilient adolescent boy with significant and prolonged exposure to parent polysubstance misuse. This boy enjoyed supportive relationships with his grandparents, and, subsequently, with his foster parents.

1. Method

2.1 Design

We employed a mixed methods research design with an emphasis on the qualitative component primarily for purposes of complementarity and expansion. In mixed methods research, complementarity refers to the use of data from different methods to generate a deeper, broader and more comprehensive portrait of a complex phenomenon. Expansion refers to the use of different methods to assess different phenomenon to increase the scope and range of the study. (Greene, Sommerfeld, & Haight, 2010). We used both standardized, structured developmental assessments and contextual, narrative constructions of multiple facets of children's social and emotional functioning. This combination of different measures and data offers an enriched understanding of children's experiences in methamphetamine-involved families.

2.2 Setting

This study was conducted in the state of Illinois, which ranks fourth in the country for methamphetamine-related arrests and lab seizures (U.S. Department of Justice, 2008). Data were collected from a nine county area served by several rural outposts of the Illinois Department of Children and Family Services (DCFS). According to the U.S. Census Bureau (2009), the region served by these field offices is predominantly rural and working-class and

covers a total of 4,457 square miles. The estimated 2008 population in these nine counties is 202,439 and more than 95% of the population is white. The median annual family income in these counties in 2008 ranged from \$36,007 to \$48,033 and the percentage of the population with at least a high school education ranged from 79% to 86%, with 10% to 21% of residents graduating from college.

2.3 Participants

Following IRB approval, all children ages six to 14 years whose families were involved with DCFS, and whose parents misused methamphetamine, were referred to the study by DCFS caseworkers. Of 54 referred children, 41 white children from 28 families and 31 of their caregivers participated. Caregivers were 11 biological mothers, two biological fathers, three grandparents, 14 foster parents, and one maternal aunt. In addition, 4 biological mothers whose children were not in the study participated. They were recruited through a local homeless shelter for women. All biological parents were recovering from methamphetamine addiction.

Eighteen (44%) of the child participants were female and 23 (56%) were male. Child participants' ages ranged from six to 14 years ($M=10$ years). Thirty-four percent of children had substantiated cases of neglect and 28% of sexual and/or physical abuse. Sixty-six percent of children were school-aged when their parents began misusing methamphetamine. In 74% of families, both parents misused methamphetamine, and 90% of parents did so for longer than three successive months. Seventy-six percent of children had parents who were involved with methamphetamine production in the home, and 54% had a parent in jail or prison for a methamphetamine related offense. The parents of all children also misused other substances: 83% of parents misused alcohol and 88% misused other illicit substances, primarily marijuana and cocaine. Fifty-nine percent of children were from families with substance misuse dating back at least as far as their grandparents' generation.

At the time of the study, 63% of children were in foster care. Their length of time in care ranged from five to 39 months ($M=18$ months) with an average of 1.7 placements. Thirty-seven percent of children were living with their families of origin receiving intact family services and monitoring from DCFS. Twelve percent of the children had previous psychiatric hospitalizations for suicidal ideation, and 66% were receiving mental health counseling.

2.4 Instruments

2.4.1 Children's experiences and perspectives—Semi-structured interviews lasting approximately 30–45 minutes were audio taped. Interviews were conducted by master's-level clinicians. Children were given the opportunity to choose among a variety of expressive toys (puppets, dollhouse and props) and art supplies (clay, drawing materials). As the interviewer and the child engaged in an activity of the child's choosing the interviewer invited the child to respond to the interview questions. Interviews began with an open-ended question: "Tell me about your family." Probes included: "Who in your family have you spent the most time with? What kinds of things have you done together?" Then, children were asked to, "Tell me about a time in your family that was happy," and "Tell me about a time in your family that was sad or scary." In the context of sad and scary narratives, children's experiences and beliefs about methamphetamine, alcohol and marijuana were probed, including: "Sometimes adults use methamphetamine. Why do they use methamphetamine? How does that make them act? What do you do when your parents use methamphetamine? What advice do you have for kids whose parents use methamphetamine? Sometimes children whose parents get involved with meth get really down. Who would you talk with if you were feeling down?" The interview concluded with an invitation for children

to, “Tell me about a time in your family that was fun.” Children’s relationships with their grandparents were not probed, but emerged in the context of these discussions of family.

2.4.2 Biological parents’ experiences and perspectives—Semi-structured, audiotaped individual interviews of approximately 1–1/2 to 2 hours in length focused on parents’ beliefs about methamphetamine misuse and its effects on children and parenting. To place these beliefs within a broader system of beliefs, the interview also included probes about alcohol and marijuana. Questions included: “Tell me about your family. Tell me about your family when you were using methamphetamine. To what extent has your involvement with meth affected your children’s lives? ...your parenting? What helped you to parent when you were using? Who supervised or cared for your children when you were high or crashed? What are some of the reasons why some children whose parents use meth have done better than others?” Parents’ perspectives on grandparents were not probed, but emerged in the context of these discussions of family.

2.4.3 Children’s mental health and behavioral functioning—Children’s mental health and behavioral functioning were assessed utilizing the Trauma Symptom Checklist for Children Alternate version (TSCC-A), a self-report measure of post-traumatic distress and related acute and chronic posttraumatic symptoms (Briere, 1997). The TSCC-A consists of 44 items that yield six clinical scales: Anxiety, Depression, Anger, Posttraumatic Stress, and Dissociation. The questionnaire takes approximately 15 minutes to complete. The TSCC-A is a widely-used standardized assessment with adequate reliability and validity (see Briere, 1997; Ebert & Fairbank, 1996).

Children’s mental health and behavioral functioning also was assessed by their current, primary caregivers using the Child Behavior Checklist for Children (CBCL). Developed for children between the ages of six and 18, this measure is a checklist including children’s internalizing behaviors, aggressive and other externalizing behaviors, and social problems. The form takes about 15 minutes to complete. The CBCL is a widely used standardized assessment with adequate reliability and validity (Achenbach, 2001).

2.4.4 Screening of children’s verbal and cognitive abilities—To ensure that children’s verbal and cognitive abilities were adequate to meaningfully respond to interviews, they were administered the Peabody Picture Vocabulary Test (PPVT-III), a norm-referenced, individually administered measure of receptive vocabulary for individuals from age 2–1/2 to adult (Dunn & Dunn, 1997). The PPVT-III takes approximately 10 minutes to administer and requires that children identify spoken words by pointing to pictures. It has excellent reliability and validity and is positively correlated with the Wechsler Intelligence Scale for Children’s (WISC) full-scale IQ score (Dunn & Dunn, 1981) and with the WISC Verbal, Performance, and Full Scale IQ among emotionally disturbed children (Himelstein & Herndon, 2006).

2.4.5 Record review—A review of children’s DCFS records was conducted to identify information related to length of time in care, placement history, history of mental health treatment, exposure to adult methamphetamine and other substance misuse, intergenerational substance misuse and the reason for DCFS involvement with the family.

2.4.6 Field notes—Field notes were completed by the interviewers after each contact with participants. By design, they were less structured and more narrative-like than other instruments and were intended to raise important questions, allow for correction of methods, and elaborate on information collected during standardized assessments. Examples of field notes include descriptions of the child’s interactions with family, friends and the researcher; as well as the type and condition of the home and property.

3.0 Procedures

Master's-level clinicians collected data in the home of each child and his/her primary caregiver. At an initial meeting, lasting approximately one hour, the study was explained and informed consent obtained. At a second meeting, lasting approximately one hour, children completed standardized assessments and interviews in counter-balanced order. While the children were interviewed, caretakers completed the CBCL. During a third visit, caregivers completed a battery of standardized assessments and those who were biological parents also participated in semi-structured interviews. These data will be presented in subsequent reports. Biological parents whose children were not participating in the study were visited in private rooms on two occasions, first to explain the study and obtain informed consent, and then to be interviewed. Record reviews occurred subsequent to other data collection. Child participants, parents and caregivers received small thank you gifts.

3.1 Qualitative data management and analysis

Children's and parents' interviews were transcribed verbatim. Discussions of the receipt of social or emotional support, for example, through companionship, affection or comfort, as well as all references to grandparents, were identified. Then, emic codes describing support, and relationships with grandparents were developed through analytic induction techniques (Denzin, 1989). All interviews were read by two coders, who independently identified all references to social and emotional support and to grandparents; and generated a list of initial descriptive codes. Intermediate coding systems then were developed through discussion, subsequently critiqued by a third independent coder and further modified and finalized through discussion. To enhance intersubjective agreement and consistency of coding, two individuals were trained to apply the coding system. They independently coded all transcripts. Intersubjective agreement on identification of relevant discussions, as well as the descriptive codes, was 90% or better. Disagreements were resolved through discussion. Coders were blinded with regard to all other assessments.

4. Results

Children's mean PPVT standard score was 99.2 (mean age equivalent mean = 10.3 years, range 75–126). Seven children (18%) scored one or more standard deviations above the population mean, and six children (15%) scored one or more standard deviations below the population mean. Those children who scored below the population mean provided elaborated responses to the interview and their data are included in this report.

As reported earlier, 50% of the children scored in the clinical range (98th percentile and above) on externalizing (26% on the aggression subscale), 32% on internalizing and 55% on total problem scales of the Child Behavior Checklist (CBCL). They also reported exposure to adult polysubstance misuse, violence, criminality and maltreatment within their families of origin (Haight, Marshall, Hans, Black & Sheridan, 2010).

In this report, data from children living in intact families and foster care were combined. There were no significant differences between children living in intact and foster families on gender, age, receipt of counseling, or CBCL rule-breaking, aggression, externalizing or total problem behaviors. Children from intact families had higher TSCC-A anger scores than youth in foster care [$M=14.40$ vs. $M=7.60$, $t(28)=2.32$, $p<.05$], as well as higher CBCL internalizing scores [$M=64.1$ vs. $M=55.6$, $t(36)=2.26$, $p<.05$].

4.1 Children's perceptions of social and emotional support

Forty of the 41 children agreed to participate in the interview. During the interviews, 83% of children described receiving social-emotional support from at least one person. As shown in

Table 1, 80% of children reported receiving social and emotional support from adults. Seventy-eight percent of children reported support from adults in their immediate and/or extended families. Children (63%) most frequently mentioned parents as providing social and emotional support. Twelve-year-old Karen explained why she decided to move from her father's home:

... I moved in with my mom because I knew that she's gonna be there for me and she wouldn't leave me alone at the house all by myself and no phone or anything like that. When I was with my mom, I always had someone to go to if I was scared or anything.

After parents, grandparents were the most frequently mentioned category of persons providing children with social-emotional support (50%). Although some grandparents had misused substances in their earlier years, including while raising their own children, some were no longer doing so. Other grandparents had never misused substances. A number of grandparents had jobs, stable relationships and appeared to participate in the wider, "mainstream" community.

Some children (15%) also mentioned non relative caregivers as sources of social-emotional support. These included step-parents and foster parents. Fourteen-year-old Tom described the impact his foster family had on his life.

Tom: When I moved here (foster home) my attitude just completely changed.

Interviewer: Why did it change?

Tom: Because I wanted to give these people a chance and they gave me a chance... If I didn't come here I would've went to juvie.

Some children (35%) described other, non relative adults as supportive. These adults included professionals such as mental health workers and clergy (20%), and adults at school including teachers, guidance counselors, and Drug Abuse Resistance Education (D.A.R.E.) officers (18%). In an account from 14-year-old Tim, the D.A.R.E. officer at school was a lifeline of sorts during the time his mother was arrested:

On Tuesday, it was church night, I went to church and I came back and I seen cop cars and everything and I already knew. I already knew that this was going to happen. Cuz I already told (D.A.R.E. officer) before this... and (D.A.R.E. officer) already told me what was going to happen and told me that he was going to be there.

Some children (15%) also reported receiving social and emotional support from adults not serving in a formal or professional role. These adults included a friend's parent, neighbor or babysitter.

Sixty-three percent of children described other children as sources of social and emotional support including siblings (40%), friends (30%), and cousins (23%). In the following excerpt, 7-year-old Jim described how he responded to one of his parents' drug parties.

I went over to my friend's house ... he got me this bike -- it was silver, red and yellow, and we went riding off. And when we got back from buying pumpkins we went ... to the park...

4.2 Children's perceptions of supportive relationships and their behavioral functioning

t-tests revealed that children's perceptions of social-emotional support from grandparents, but not other people, were associated with better child behavioral functioning. As indicated in Table 2, children who reported supportive relationships with their grandparents scored

significantly lower on the CBCL externalizing scale [$t(37) = 2.07, p < .05$]; social problems scale [$t(37) = 2.23, p < .05$]; and aggression subscale [$t(37) = 2.75, p < .01$] than did children who did not report these relationships. T-tests and chi-squares revealed no relationships between supportive grandparents and the CBCL internalizing scale or subscales, TSCC-A, PPVT, or other child or family variables (e.g., child gender and exposure to parent substance misuse, violence and maltreatment; marital status of parents; child's placement at time of interview), grandparents' history of substance misuse, and child receipt of mental health counseling.

4.3 Children's perceptions of how grandparents were supportive

When discussing their families, 38% of children described their grandparents as providing positive, enjoyable leisure activities. These activities included swimming in ponds and rivers, mushroom hunting in the forest, celebrating holidays, vacationing, going to fairs and raising animals such as chicks with their grandparents. For example, 9-year-old Scott, described a "fun" time with his family at the fair:

I went with Grandma... It was fun. We ate a corn dog with ketchup and mustard, and then I went on the bumper (car) rides and then I went down a big slide...

Thirteen percent of children also described their grandparents as providing important psychological support. These grandparents were identified as the people children go to when they have problems, to obtain explanations of family problems and for comfort. They also were described as providing important connections to extended family and friends from whom children in foster care were separated. For example, 12-year-old Brad enjoyed supportive relationships with both of his grandmothers, which continued while he and his brother were in foster care:

We have a grandma and we call her "Mam," and she lives in [home town]. and we go over there about every other weekend and see her. And then on my dad's side we have a grandma, we just call her "Grandma," and she lives in [home town] too. We don't go over to her house to see her like we do Mam. Mam is, I think, 50 or 60 and my other grandma is almost 80, I think. So, she's a little older and they [DCFS workers] don't think that she'll be able to get around enough to take care of us so she (says) like, "We'll go over to Aunt Kay's," which is my grandma's daughter. We'll go over to her, at my Aunt Kay's, and see my grandma and stuff all the time. ... usually when we go over to Mam's we have our cousin, Adam. He's usually over there. He's in between our ages. He's eleven now, I think.... I've seen a lot of my friends from [home town] since then (being taken into care). Usually just at, like if I'm at my grandma's ... I see them...

A few children (5%) also specifically discussed grandparents as providing temporary shelter for them when their parents were using drugs. 12-year-old Brad described riding his bike to his grandmother's house when his parents were misusing methamphetamine:

Usually I was at my grandma's ... I went over there and I played on the computer and stuff...I'd stay the night at Grandma's, usually.... Just stay the night at Grandma's house and help her ...

Some children (10%) also mentioned the material goods provided by their grandparents such as school supplies, books, toys, electronic games, computers, and musical instruments.

Of course, not all children were fortunate enough to have supportive relationships with their grandparents. Eight percent of children specifically described negative relationships with their grandparents. Their grandparents were described as "mean", critical, or using drugs.

For example, 6-year-old Samantha explained why she preferred to live with her foster family to living with her grandparents.

My grandma is mean, and these guys (foster parents) are not... They (grandparents) always hit us. ... They were mean.

4.4 Parent's perceptions of the extent to which, and how, grandparents are supportive

Parents' interviews (n=19) are consistent with children's reports, and also provide adult reflections on support they received from their own grandparents when they were children growing up in substance-involved families. When asked to discuss their families and sources of support, 58% percent of parents reported on the positive role of grandparents in children's lives. Fifty-three percent of parents reported that their children were living with, or had lived with their grandparents. Some parents (16%) also reported that grandparents cared for their children when they (parents) were misusing substances. Twenty-one percent of parents also described grandparents as a source of social and emotional support for their children. For example, Alice described the support her father provided to her children when she was actively using drugs:

My dad did those things- took them fishing, took them camping, had my son in preschool, took them to the doctor for check-ups. He did all those things for them.

Some parents (10%) also credited the social and emotional support their own parents provided them for their recovery from addiction as central to their ability to resume parenting.

Twenty-six percent of parents also reported support from their own grandparents, 11% as adults, and 21% during their own childhoods. Katie described that when she was growing up, her "whole family," with the exception of her grandparents, was involved in substance misuse, including methamphetamine production. As a child, her grandparents loved and cared for her:

Katie: ...my grandparents...were the ones that were always there to help, you know? We (family) moved in with them quite frequently whenever we got, every time we got evicted we would stay with them.

Interviewer: How did they (grandparents) feel about it (substance misuse)?

Katie: They hated it, they hated it. ... but it was like unconditional love, you know. They were always there to help me. I mean, they're the ones I ended up living with, cause my mom kicked me out several times when I was younger. Ever since I was 12, I was kinda tossed around from place to place so. ... (my dad) paid for the lawyer to give my grandparents custody of me, cause my mom didn't want me, and my dad didn't want me... my grandparents wanted me, so he paid the lawyer and he got out of child support that way. So my grandparents said they would take care of me no matter what. So that's where I pretty much ended up ... (until age 17 when she married).

Some parents (21%) also described their children's grandparents as having a negative impact on their children. Barry described his abusive father:

My father passed away in '95. Uhm, he was an alcoholic to the end. Growing up, Dad was very abusive. And until the man was probably 65, I hated the ground he walked on. I tolerated being around him, one because I lived right next to him and two because I had, you know, I had his friendship. And when my son was 14, Dad started his verbal abuse on him, one day. And I said, "(Expletive) Dad, you act like a child."

4.5 Illustrative case

Tim exemplifies a relatively resilient child. Although he did not know his biological father and his relationship with his mother was troubled, he had the support of grandparents from infancy through middle childhood. Tim was first placed in foster care as age 13, and subsequently developed a close relationship with his foster parents who adopted him at the age of 16. We followed Tim from the ages of 14–17. At the time we first met Tim he was in his second foster home. His five half siblings had been placed with various paternal grandparents following his mother's incarceration for drug-related offenses.

Tim was resilient relative to many other children from methamphetamine-involved families. In contrast to our sample as a whole in which 74% of children scored in the clinical range on at least one CBCL scale or subscale, Tim had no such clinical range scores, nor did he score in the clinical range on the TSCC-A. Although Tim was resilient relative to other children in our sample, he was distinguishable from children in the general population. At age 14, he scored in the subclinical range ($T = 50$ – 65) on all TSCC-A scales suggesting some lingering problems with anger ($T = 50$), depression ($T = 51$), dissociation ($T = 50$), anxiety ($T = 62$) and post traumatic stress ($T = 64$). His standard score of 86 on the PPVT fell within the low normal range.

Similar to other children in our sample, Tim had experienced numerous risks. In his family of origin, Tim experienced extensive and prolonged exposure to parent methamphetamine and other substance misuse. Tim's mother was involved with illegal substances including marijuana and crack cocaine from his infancy. She began using methamphetamine on a regular basis with her paramour after the death of her father when Tim was approximately 10-years-old. Similar to most other children in our sample, Tim described repeated exposure to adult violence, criminality, polysubstance misuse and child maltreatment in his family of origin. Despite these multiple and significant risks, Tim did not receive mental health services prior to, or during, the 3 years he was involved with the study.

Tim also reported some possible protective factors during the time he lived with his mother, especially support from various grandparents. He reported that during his childhood, he and his younger half sister regularly spent time with her paternal grandfather whom Tim remembers fondly as someone who had always "been good" to him, was "really nice," and "taught me how to be polite." Tim also reported having a close relationship with his maternal grandmother. In the following excerpt, he describes the concrete help she provided during a time when he was struggling at school:

In the past, like when I lived with my mom, I know I was a bad kid in school. I was a very bad kid in school. I always got in trouble at school. Like, I had bad grades. Like in third grade, I didn't like this teacher very much so I acted off in class, you know, to get attention and everything, you know... I had my grandma.....I remember my grandma coming to school, sitting by me, [helping me] do my homework and everything. That's why I got the good grades and stuff. So I guess it was embarrassing, but other than that I thought I was pretty cool because then the kids thought I was pretty smart after that.

Tim was especially close to his maternal grandfather. When he was 14, Tim described him as "...part of my family. ... like a father to me." Tim believed that his mother's relationship with her father helped her to function. After his grandfather's death when Tim was 10, Tim described his family as "starting to break down from there" as his mother's drug use accelerated out of control. When Tim was 17, he again elaborated his feelings about his maternal grandfather and the important role he played in his life:

Interviewer: Can you tell me about a time in your family that was sad or scary?

Tim: ... I'd say a time in my family that was sad was when my grandpa died. It was very sad. Because Grandpa is, helped to support our family .., he wasn't a dad, but I mean he acted like a dad. He gave my mom the rent and money to pay for us. Sometimes he gave us our own money to do whatever we wanted with it and I always thought that was so cool. ... I mean he was fun. He fought in Vietnam and he got all this money and he'd just give it to us. And I'm like a 3rd grader and what am I doing with [money] in my hand? I'm like, "Grandpa, this is not mine." And he'd say, "This is your birthday money. You better take it now." And I'd be, "Okay. Okay." I remember it. I remember those days and after he died, it was just sad because we hadn't, basically, I guess, not to be mean, but Mom basically..... if Grandpa wasn't there, she had no way to do it because she couldn't work. Basically she could, but she didn't try to.

Interviewer: Sure.

Tim: Then, I guess she took Grandpa for granted, but I guess Grandpa ... cared more about us kids than anything. So, I'd say that would be a sad time.

Tim also referred to his wish that his grandfather could see how well his life was turning out:

Tim: I wish he was still alive so he could see me today. But, you know, life's gotta go on and you gotta do what you gotta do.

Interviewer: You were close with him?

Tim: Yes I was, I was really close.

The social-emotional support Tim received from his grandparents appeared to be an important source of help, enjoyment and comfort during difficult times in his life. Indeed, memories of those relationship, especially with his paternal grandfather, seemed to provide an ongoing source of comfort and positive expectations as he formed supportive relationships with his new foster/adoptive parents.

5. Discussion

Aggression is one of the best predictors of children's current and future maladjustment (Crick, 1996; Parker & Asher, 1987; Prinstein & La Greca, 2004; Rosen, Underwood, Beron, Gentsch, Wharton & Rahdar, 2009). Given the high level of aggressive and other externalizing behavioral problems in children from rural, methamphetamine-involved families (Asanbe et al., 2008; Haight et al., 2005; 2007; 2009), quality mental health interventions are paramount. Identifying naturally occurring protective factors can inform the development of targeted interventions for rural children from drug-involved families by building on a base of child and family strengths, and informing approaches when children struggle. Some of the children in this study described positive sources of social and emotional support in their existing social networks including from grandparents. Parents' discussions were largely consistent with children's reports, and also provided reflections on support that they had received from their own grandparents as children from drug-involved families and as adults. Of course, not all children or parents were fortunate enough to have supportive grandparents. Some children and parents reported that grandparents misused substances and/or were abusive.

Consistent with the literature regarding the protective role of grandparents (e.g., Denham & Smith, 1989; Lynskey & Fergusson, 1997; Pynoos, Steinberg & Goenjian, 1996; Kroll, 2004), children who described supportive relationships with grandparents had lower scores on several CBCL scales: Social Problems, Externalizing, and Aggression. Grandparent

support was not associated with internalizing behavior problems or traumatic responses. Children's reports of supportive relationships with other kin and non kin adults, or other children, were not associated with their behavioral functioning.

These findings raise the possibility that rural grandparents may protect their vulnerable grandchildren from the development of social problems such as aggressive and other externalizing behavioral problems. Children had little access to social service and mental health providers and, in any case, many of them, like their parents, were highly suspicious of such outsiders (Haight et al., 2009). As trusted family members, many of whom had themselves experienced addiction when younger, some grandparents were "mainstream", relatively well functioning, mature adults to whom children had consistent access. Unlike favorite teachers or counselors, some grandparents were available day or night, whenever crises arose. Furthermore, when children called on their grandparents for support, they did not need to fear outside involvement from child welfare or police.

Additional research clearly is needed. Our quantitative findings are preliminary. They need to be replicated with other samples of children from rural, polysubstance-involved families. Stronger designs also are needed to control for other characteristics of children, nuclear families or larger social contexts that may be associated with children's perceptions of grandparent support.

Our qualitative findings also are preliminary. Additional research is needed to systematically probe children's and parents' perceptions of grandparent support. Future research also should include grandparents' own experiences and beliefs. For example, some of the grandparents described in this study who misused substances as adolescents and young adults had relinquished parenting to their own parents. Parenting their grandchildren may provide them with a personally important opportunity to parent effectively.

Additional research also should systematically examine how grandparents may protect children from the development of aggressive and other externalizing behavioral disorders. Some clues are present from the semi-structured interviews of children and their parents. At some point in their lives, grandparents had served as primary caregivers for approximately half of the children in our sample. This care giving function may be essential for children in isolated, rural areas whose parents are incapacitated by substance misuse and suspicious of outsiders. At this most basic level, grandparent support may prevent obstacles to development by caring for children's safety and physical needs when parents are incapacitated by substance misuse. Then, children have opportunities to engage in developmentally appropriate activities such as play, and to participate in school, church, sports and hobbies.

Grandparents also may promote healthy social-emotional development by forming supportive relationships with their grandchildren. Nearly half of the children and over half of parents in the current study reported socially and emotionally supportive relationships with grandparents. Children can form multiple attachment relationships, which can vary in quality. For example, a child may experience an insecure attachment relationship with a substance-involved parent, but a secure relationship with a grandparent. Attachment relationships provide a working model for children's sense of self and interpersonal relationships, which can be carried into the formation of new relationships with peers and adults. Children who have experienced secure attachment relationships tend to be more socially competent and likely to seek out other secure relationships, than are children without these experiences. Indeed, attachment to pro-social adults has been shown to promote competent social functioning (see Mangelsdorf & Brown, 2009). Secure attachment relationships with grandparents may be particularly important corrective experiences for

children from methamphetamine-involved families. Many of these children have been exposed to maltreatment, and adult violence and criminality (Haight et al., 2005; 2007; 2009), which are associated with a variety of mental health and social problems including externalizing and aggressive behaviors (Haight et al., 2010). Loving relationships with grandparents also may provide a sense of comfort to children during difficult periods of life.

Grandparents also may promote children's social competence by providing opportunities for them to engage in positive leisure activities. Children in this study reported engaging in a variety of leisure activities with their grandparents. Leisure time is an important developmental context for children and adolescents (Shaw, 2009). Children who enjoy leisure activities with their healthy grandparents may develop leisure skills appropriate to their rural areas, such as raising animals, and participating in county fairs, sports and church-sponsored events. Participation in these activities also can facilitate social connections to healthy adults and non delinquent peers. These activities also can provide important, alternative models of leisure activities that do not center on substance misuse. Such models are particularly relevant for many children from methamphetamine-involved families whose exposure to leisure activities with parents focus on drug parties (Haight et al., 2005; 2007; 2009; Sheridan, 2010).

Although very early in the research program, these data have implications for practitioners. Many of the children in the present study came from families with several generations of substance misuse. Their exposure to adult polysubstance misuse, violence, criminality and maltreatment may be similar to that experienced by their substance-involved parents. Yet, development does continue into adulthood. Some grandparents, who misused substances in adolescence and early adulthood, are substance free, have jobs and stable relationships in mid life. They also may hold relatively nonjudgmental attitudes towards children's otherwise stigmatized parents. Maintaining a positive relationship with a grandparent may be particularly important for children in foster care who are troubled by disrupted relationships.

Practitioners can play an important role in helping children to maintain relationships with supportive grandparents. Maintaining these relationships may require concrete resources, support and education for grandparents, especially after children enter into foster care. Amongst our sample of children, a few grandparents withdrew from their grandchildren because of the psychological pain and helplessness they experienced in dealing with their polysubstance-involved children. Other grandparents had transportation issues when their grandchildren were placed in foster care in other rural communities, or had conflicts with foster parents. The 2008 Fostering Connections to Success and Increasing Adoptions Act offers support to grandparents and other relative guardians by providing training that is similar to the training provided to foster and adoptive parents including child development, behavior management, and identification of systems of support. Further, the Act mandates that relatives be notified within 30 days of a child's removal from their parent's care. Such notification provides the opportunity for grandparents and relative caregivers to become a child's legal guardian or to continue to provide support to children while they are in foster care (Children's Defense Fund, 2009).

Data from this study should be interpreted in light of its exploratory intent. Grandparent support emerged from the data, and was not systematically probed. Rather, the potential importance of grandparents emerged spontaneously from children's and parents' discussions of their families, which suggest these relationships were important to them. Future research should examine systematically children's relationships with grandparents and how such relationships may protect against aggressive and other externalizing behaviors.

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References

- Achenbach, TM. Integrative guide to the 1991 CBCL/4-18, YSR, and TRF profiles. Burlington, VT: University of Vermont, Department of Psychology; 1991.
- Achenbach, TM.; Rescorla, PJ. Manual for ASEBA school-age forms and profiles. Burlington, VT: University of Vermont, Research Center for Children, Youth, and Families; 2001.
- Adrian, M. Charleston Illinois Times- Courier. 2003 September 12. Meth cases impact area's children.
- Amatetti, S.; Young, NK. Women, Children, and Methamphetamine. Presented at the Methamphetamine Summit: Methamphetamine Treatment: Effective Practices; Los Angeles. April 5-7, 2006; 2006.
- Asanbe C, Hall C, Bolden C. The methamphetamine home: Psychological impact on preschoolers in rural Tennessee. *The Journal of Rural Health*. 2008; 24(3):229-235. [PubMed: 18643799]
- Baldry AC. Bullying in schools and exposure to domestic violence. *Child Abuse & Neglect*. 2003; 27:713-732. [PubMed: 14627075]
- Berrick JD. Assessing quality of care in kinship and foster family care. *Family Relations*. 1997; 46:273-280.
- Briere, J. Psychological assessment of adult posttraumatic states. Washington, DC: American Psychological Association; 1997.
- Broidy LM, Nagin DS, Tremblay RE, Bates JE, Brame B, Dodge K, et al. Developmental trajectories of childhood disruptive behaviors and adolescent delinquency : A six site, cross-national study. *Developmental Psychology*. 2003; 39:222-245. [PubMed: 12661883]
- Bullock K. The changing role of grandparents in rural families: The results of an exploratory study in southeastern North Carolina. *Families in Society*. 2004; 85(1):45-54.
- Children's Defense Fund. New help for children raised by grandparents and other relatives: Questions and answers about the Fostering Connections to Success and Increasing Adoptions Act of 2008. 2009. Available at <http://www.childrensdefense.org/child-research-data-publications/data/FCSIAA-new-help-children-raised-by-grandparents-full-report.pdf>
- Child Welfare League of America. CWLA standards of excellence for kinship care services. Child Welfare League of America Press; Washington, D.C: 2000.
- Cicchetti, D.; Toth, S.; Maughan, A. An ecological-transactional model of child maltreatment. In: Sameroff, A.; Lewis, M.; Miller, S., editors. *Handbook of developmental psychopathology*. 2. New York: Kluwer Academic/Plenum; 2000. p. 689-722.
- Clausen J, Landsverk Ganger M, Chadwick D, Litrownik A. Mental health problems of children in foster care. *Journal of Child and Family Studies*. 1998; 7(3):283-296.
- Cretzmeyer M, Sarrazin MV, Huber DL, Block RI, Hall JA. Treatment of methamphetamine abuse: Research findings and clinical directions. *Journal of Substance Abuse Treatment*. 2003; 24:267-277. [PubMed: 12810148]
- Crick N. The role of relational aggression, overt aggression, and prosocial behavior in the prediction of children's future social adjustment. *Child Development*. 1996; 67:2317-2327. [PubMed: 9022243]
- Denham T, Smith C. The influence of grandparents on grandchildren: A review of the literature and resources. *Family Relations*. 1989; 38:345-350.
- Denzin, N. *The research act: A theoretical introduction to sociological methods*. Englewood Cliffs, NJ: Prentice Hall; 1989.
- Dodge, K.; Coie, J.; Lynam, D. Aggression and antisocial behavior in youth. In: Eisenberg, N., editor. *Handbook of child psychology: Volume 3. Social, emotional, and personality development*. Hoboken, New Jersey: Jim Wiley and Sons; 2006.

- Dunn, LM.; Dunn, LM. Peabody Picture Vocabulary Test—Revised. Circle Pines, MN: American Guidance Service; 1981.
- Dunn, LM.; Dunn, LM. Peabody Picture Vocabulary Test. 3. Circle Pines, MN: American Guidance Service; 1997.
- Ebert, L.; Fairbank, JA. American Psychology Law Society News (Division 41 of the American Psychological Association). 1996 Fall. The Trauma Symptom Inventory: Assessing the spectrum of symptoms associated with traumatic stress; p. 21-23.
- Egeland, B. Mediators of the effects of child maltreatment on developmental adaptation in adolescence. In: Cicchetti, D.; Toth, S., editors. Rochester symposium on developmental psychopathology: Vol 7. The effects of trauma on the developmental process. Rochester, NY: University of Rochester; 1997. p. 403-434.
- Federal Bureau of Investigation. Semi-Annual Uniform Crime Report. 2006. Retrieved December 20, 2006 from <http://www.fbi.gov/ucr/ucr.htm>
- Finzi R, Ram A, Har-Even D, Shnit D, Weizman A. Attachment styles and aggression in physically abused and neglected children. *Journal of Youth and Adolescence*. 2001; 30(6):769–786.
- Ghuman HS, Weist MD, Shafer ME. Demographic and clinical characteristics of emotionally disturbed children being raised by grandparents. *Psychiatric Services*. 1999; 50:1496–1498. [PubMed: 10543863]
- Goodman CC, Potts M, Pasztor E, Scorzo D. Grandmothers as kinship caregivers: Private arrangements compared to public child welfare oversight. *Children and Youth Services Review*. 2004; 26:287–305.
- Greene, J.; Sommerfeld; Haight, W. Mixing methods in social work research. In: Shaw, I.; Briar-Lawson, K.; Orme, J.; Ruckdeschel, R., editors. *The SAGE handbook of social work research*. Thousand Oaks, CA: SAGE Publications, Inc; 2010.
- Haight W, Black J, Sheridan K. A mental health intervention for rural, foster children from methamphetamine-involved families: Experimental assessment with qualitative elaboration. *Children and Youth Services Review*. 2010; 32(10):1446–1457. PMC Journal – In Process.
- Haight WL, Jacobsen T, Black J, Kingery L, Sheridan K, Mulder C. “In these bleak days”: Parent methamphetamine abuse and child welfare in the rural Midwest. *Children and Youth Services Review*. 2005; 27:949–971.
- Haight W, Marshall J, Hans S, Black J, Sheridan K. They mess with me, I mess with them”: Understanding physical aggression in rural girls and boys from methamphetamine-involved families. *Children and Youth Services Review*. 2010; 32(10):1223–1234. [PubMed: 20729981]
- Haight, WL.; Ostler, T.; Black, J.; Kingery, L. *Children of methamphetamine-involved families: The case of rural Illinois*. New York: Oxford University Press; 2009.
- Haight W, Ostler T, Black J, Sheridan K, Kingery L. A child’s eye view of parent methamphetamine abuse: Implications for helping foster families to succeed. *Children and Youth Services Review*. 2007; 29(1):1–15.
- Heflinger C, Simpkins C, Combs-Orme T. Using the CBCL to determine the clinical status of children in state custody. *Children and Youth services Review*. 2000; 22(1):55–73.
- Himelstein P, Herndon JD. Comparison of the WISC and Peabody Picture Vocabulary Test with emotionally disturbed children. *Journal of Clinical Psychology*. 2006; 18(1):82. [PubMed: 13907488]
- Hirshorn, B. Grandparents as caregivers. In: Szinovacz, M., editor. *Handbook on grandparenthood*. Westport, CN: Greenwood Press; 1998. p. 200-214.
- Hohman M, Oliver R, Wright W. Methamphetamine abuse and manufacture: The child welfare response. *Social Work*. 2004; 49(3):373–381. [PubMed: 15281692]
- Huesmann, LR.; Eron, LD. Childhood aggression and adult criminality. In: McCord, J., editor. *Facts, figures, and forecasts: Advances in criminal theory*. Vol. 3. New Brunswick, NJ: Transaction; 1992. p. 137-156.
- Illinois Criminal Justice Information Authority (ICJIA). *Assessing Illinois’ Metropolitan Enforcement Groups and Task Forces*. March. 2004 Retrieved December 16, 2004, from <http://www.icjia.state.il.us/public/pdf/ResearchReports/2004MEGTFSummary.pdf>

- Johnson RM, Kotch JB, Catellier DJ, Winsor JR, Dufort V, Hunter W, et al. Adverse behavioral and emotional outcomes from child abuse and witnessed violence. *Child Maltreatment*. 2002; 7(3):79–186.
- Jonson-Reid M, Barth RP. From placement to prison: The path to adolescent incarceration from child welfare supervised foster or group care. *Children and Youth Services Review*. 2000; 22(70):493–516.
- Keller T, Wetherbee K, LeProhn N, Payne V, Sim K, Lamont E. Competencies and problem behaviors of children in family foster care: Variations by kinship placement status and race. *Children and Youth Services Review*. 2001; 23:915–940.
- Kroll B. Living with an elephant: Growing up with parental substance abuse. *Child and Family Social Work*. 2004; 9:129–140.
- Lynskey M, Fergusson D. Factors protecting against the development of adjustment difficulties in young adults exposed to childhood sexual abuse. *Child Abuse and Neglect*. 1997; 21(2):1177–1190. [PubMed: 9429770]
- Mangelsdorf, S.; Brown, G. Attachment, infant. In: Shweder, R., editor. *The Child: An encyclopedic companion*. Chicago: The University of Chicago Press; 2009.
- Manning T. Drug labs and endangered children. *FBI Law Enforcement Bulletin*. 1999; 68(7):10–15.
- Minkler M, Fuller-Thomson E. Second time around parenting: Factors predictive of grandparents becoming caregivers for their grandchildren. *International Journal of Aging and Human Development*. 2000; 50(3):185–200. [PubMed: 10987341]
- Moretti MM, Obsuth I, Odgers CL, Reebye P. Exposure to maternal vs. paternal partner violence, PTSD, and aggression in adolescent girls and boys. *Aggressive Behavior*. 2006; 32:385–395.
- Mrazek, PJ.; Haggerty, RJ., editors. *Reducing risks for mental disorders: Frontiers for preventive intervention research*. Washington, DC: National Academy Press, Institute of Medicine; 1994.
- Muskie School of Public Service. Research & Policy Brief- Substance abuse among rural youth: A little meth a lot of booze. Portland, ME: University of Southern Maine, Maine Rural Health Research Center; June. 2007
- National Center on Addiction and Substance Abuse at Columbia University (CASA). No safe haven: Children of substance abusing parents. New York: The National Center of Addiction and Substance Abuse; 1999.
- National Drug Intelligence Center. National Drug Threat Assessment 2009. 2009. Available at <http://www.justice.gov/ndic/pubs31/31379/31379p.pdf>
- Ostler T, Haight W, Black J, Choi G, Kingery L, Sheridan K. Case series: Mental health needs and perspectives of rural children reared by parents who abuse methamphetamine. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2007; 46(4):500–507. [PubMed: 17420685]
- Parker JG, Asher SR. Peer relations and later personal adjustment: Are low- accepted children at risk? *Psychological Bulletin*. 1987; 102:357–389. [PubMed: 3317467]
- Prinstein MJ, La Greca AM. Childhood rejection, aggression, and depression as predictors of adolescent girls' externalizing and health risk behaviors: A six-year longitudinal study. *Journal of Consulting and Clinical Psychology*. 2004; 72:103–112. [PubMed: 14756619]
- Pynoos, R.; Steinberg, A.; Goenjian, A. Traumatic stress in childhood and adolescence: Recent developments and current controversies. In: Van der Kolk, B.; McFarlane, A.; Weisaeth, L., editors. *Traumatic stress: The effects of overwhelming experience on mind, body and society*. New York: Guilford Press; 1996. p. 331–358.
- Resnick MD, Bearman PS, Blum RW, Bauman KE, Harris KM, Jones J, et al. Protecting adolescents from harm: Findings from the National Longitudinal Study on Adolescent Health. *Journal of the American Medical Association*. 1997; 278:823–832. [PubMed: 9293990]
- Rhodes, JE.; Roffman, JG. Nonparental adults as developmental assets in the lives of youth. In: Lerner, RM.; Benson, PL., editors. *Developmental assets and asset building communities: Implications for research, policy, and practice*. Boston: Kluwer Academic; 2003. p. 195–212.
- Rosen LH, Underwood MK, Beron KJ, Gentsch JK, Wharton ME, Rahdar A. Persistent versus periodic experiences of social victimization: Predictors of adjustment. *Journal of Abnormal Child Psychology*. 2009; 37(5):693–704. [PubMed: 19263212]

- Ryan JP, Testa MF. Child maltreatment and juvenile delinquency: Investigating the role of placement and placement instability. *Children and Youth Services Review*. 2005; 27:227–229.
- Shaw, S. Leisure time, family. In: Shweder, R., editor. *The Child: An encyclopedic Companion*. Chicago: The University of Chicago Press; 2009.
- Sheridan, K. Unpublished dissertation. University of Illinois at Champaign-Urbana; Urbana, IL: 2010. Mental health outcomes, social functioning, and the perspectives of children from Methamphetamine-involved families in the rural Midwest: Challenges and strengths.
- Shillington A, Hohman M, Jones L. Parenting women in substance use treatment: Are those involved with the child welfare system different? *Journal of Social Work Practice in the Addictions*. 2002; 1(4):24–46.
- Smith G, Palmieri P. Risk of psychological difficulties among children raised by custodial grandparents. *Psychiatric Services*. 2007; 58(10):1303–1310. [PubMed: 17914007]
- Tarren-Sweeney M. Retrospective and concurrent predictors of the mental health of children in care. *Children and Youth Services Review*. 2008; 30:1–25.
- Tarren-Sweeney M, Hazell P. The mental health of children in foster and kinship care. *Journal of Pediatric Child Health*. 2006; 42:91–99.
- Testa, M. New permanency strategies for children in foster care. In: Lindsey, D.; Shlonsky, A., editors. *Child welfare research: Advances for practice and policy*. New York: Oxford University Press; 2008. p. 108-124.
- Thornberry, TP.; Smith, CA.; Rivera, C.; Huizinga, D.; Stouthamer-Loeber, M. Family disruption and delinquency. Washington, DC: Juvenile Justice Bulletin, Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice; 1999.
- Tremblay RE, Nagin DS, Seguin JR, Zoccolillo M, Zelazo PD, Boivin M, Perusse D, Japel C. Physical aggression during early childhood: trajectories and predictors. *Pediatrics*. 2004; 114(1):43–50.
- U.S. Census Bureau. US Census Bureau: State and County QuickFacts. 2009. Available at <http://quickfacts.census.gov/qfd/states/17000.html>
- U.S. Department of Justice. DEA Fact Sheet: Illinois. 2008. Available at <http://www.justice.gov/dea/statistics.html>
- West, K.; McKenna, JJ.; Stuntz, S.; Webber-Brown, S. Drug endangered children & clandestine methamphetamine labs. In: West, K.; Stuntz, S., editors. *The drug endangered children response team: Training for trainer's curriculum (Unit 2)*. Los Angeles, CA: The Drug Endangered Children Resource Center; 2000.
- Yates T, Dodds M, Sroufe LA, Egeland B. Exposure to partner violence and child behavior problems: Controlling for child- directed abuse, child cognitive ability, family income, and life stress. *Development and Psychopathology*. 2003; 15:199–218. [PubMed: 12848442]

Table 1

Children's perceptions of socially and emotionally supportive relationships (n=40)

Source of Support	Number (Percent)
Adults	32 (80)
Relatives:	31 (78)
Parent	25 (63)
Grandparent	20 (50)
Aunt/Uncle	17 (43)
Non relative caregivers	6 (15)
Other non relatives:	14 (35)
Professional	8 (20)
Adults at School	7 (18)
Non-Professional Adult	6 (15)
Children	25 (63)
Sibling	16(40)
Friend	12(30)
Cousin	9 (23)

Table 2

CBCL Scores and Grandparent Support: T-Tests (n=39)

	Supportive Relationship with Grandparent	
	Yes	No
	Mean (SD)	Mean (SD)
Externalizing (T-score)	57.00 (11.18) *	66.32 (12.68)
Social Problems (Raw score) ¹	3.30 (2.77) *	8.95 (10.70)
Aggressive Behavior (Raw score)	7.75 (6.10) **	15.40 (10.06)

*
 $p < .05$;**
 $p < .01$

¹As recommended by Achenbach and Rescorla (2001), raw scores were utilized in data analyses involving the eight CBCL narrow-band problem scales and T scores were used for broad band scores.